

ABSTRACT

A direct current power supply apparatus includes a first power supply circuit and a second power supply circuit. The first power supply circuit converts a source voltage from an externally supplied direct current power source into a first voltage and provides the first voltage to an output terminal. The second power supply circuit converts the source voltage from the externally supplied direct current power source into a second voltage and provides the second voltage to the output terminal. The second power supply circuit is controlled to be turned on and off. The first power supply circuit detects voltage at the output terminal and, when the second voltage is not being provided because the second power supply circuit is inactivated, provides the first voltage.